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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,056	09/09/2003	Andreas Blumenthal	13913-083001 / 2002P10217	3806
32864	7590	03/18/2008	EXAMINER	
FISH & RICHARDSON, P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			CHOU, ANDREW Y	
			ART UNIT	PAPER NUMBER
			2192	
			MAIL DATE	DELIVERY MODE
			03/18/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/659,056

**Applicant(s)**

BLUMENTHAL ET AL.

**Examiner**

ANDREW CHOU

**Art Unit**

2192

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 9-20 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-20, 24-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI-108)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1, 6, 7, and 9-12 are amended. Claims 8 and 21-23 are cancelled
2. Claims 1-7, 9-20, and 24-27 are pending.

***Response to Arguments***

3. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection. See Arnold et al. US 2003/0106045 A1 art made of record below.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-7, 9-20, and 24-27 are rejected under 35 U.S.C. 102(a) as being anticipated by Arnold et al. US 2003/0106045 A1 (hereinafter Arnold).

**Claim 1:**

Arnold discloses a computer program product (see for example page 4, [0039]), tangibly embodied on a machine- readable storage device, comprising instructions operable to cause data processing apparatus to:

establish any number of checkpoints in a computer program, the computer program having a program structure, each checkpoint in the plurality of checkpoints being

Art Unit: 2192

defined by a respective statement in source code of the computer program (see for example “creation breakpoints” in page 2, [0029], Fig. 4 steps 106, 110, and related text); and

assign each checkpoint in the plurality of checkpoints to a checkpoint group without regard to the program structure of the computer program, the assignment of each checkpoint to a checkpoint group being specified in the statement defining the respective checkpoint (see for example page 3, [0030], “...collectively set...”, Fig. 4, steps 112-124, and related text).

**Claim 2:**

Arnold further discloses the product of claim 1, wherein the checkpoints comprise assertion statements (see for example FIG. 4, step 108, and related text) and breakpoint statements (see for example page 1, [0006]).

**Claim 3:**

Arnold further discloses the product of claim 1, further comprising instructions to: establish activation variants to enable multiple checkpoint groups to be managed jointly (see for example “multiple creators”, page 3, [0031]).

**Claim 4:**

Arnold further discloses the product of claim 1, further comprising instructions to: receive a control input activating a first checkpoint group (see for example FIG. 4, step 110, and related text); and activate the checkpoints in the first checkpoint group (see for example FIG. 4, step 124, and related text).

**Claim 5:**

Arnold further discloses the product of claim 4, wherein the instructions to receive a control input further specifies a mode and the mode comprises instructions to: receive a control input that specifies a mode in which checkpoints that are assertions terminate on assertion failure (see for example FIG. 4, step 110, and related text); receive a control input that specifies a mode in which checkpoints that are assertions log status on assertion failure (see for example FIG. 4, step 110, and related text); and receive a control input that specifies a mode in which checkpoints that are assertions break in a debugger on assertion failure (see for example FIG. 4, step 110, and related text);

**Claim 6:**

Arnold further discloses the product of claim 4, further comprise instructions to: receive a control input specifying that activating is to performed only for a particular user of multiple users using the computer program, the activating not affecting the use of the computer program by other users (see for example page 3, [0030], "...user...").

**Claim 7:**

Arnold further discloses the product of claim 4, further comprises instructions to: receive a control input specifying that activating is to be performed only for a particular server of multiple servers on which the computer program is running (see for example FIG. 2, items 44, 46, and associated text).

**Claim 8:**

(cancelled)

Art Unit: 2192

**Claim 9:**

Arnold further discloses the product of claim 1, wherein:

the checkpoints comprise assertion statements, each assertion statement when activated testing whether a specified assertion condition is true or false (see for example page 1, [0006]); and

the checkpoints comprise breakpoint statements, each breakpoint statement when activated halting program execution when it is encountered during program execution (see for example FIG. 4, step 108, and related text).

**Claim 10:**

Arnold further discloses the product of claim 2, wherein:

the assertion statements comprise an assertion statement having an argument to activate logging with programmer-controlled granularity, the argument being used to determine whether to update a log entry when the assertion statement fails (see for example page 4, [0045], "...log...").

**Claim 11:**

Arnold further discloses the product of claim 1, further comprising instructions to establish a development environment for developing the first computer program in which the checkpoint groups are development objects (see for example FIG. 1, item 26, "User Interface", and related text).

**Claim 12:**

Arnold further discloses the product of claim 1, wherein the checkpoints and the first computer program are in a compiled form (see for example FIG. 7, and related text).

**Claim 13:**

Arnold discloses an apparatus (see for example FIG. 1, and related text), comprising: means for establishing a plurality of checkpoints in a computer program, the computer program having a program structure (see for example "creation breakpoints" in page 2, [0029], Fig. 4 steps 106, 110, and related text), each checkpoint in the plurality of checkpoints being defined by a respective statement in source code of the computer program (see for example "creation breakpoints" in page 2, [0029]); and means for assigning each checkpoint in the plurality of checkpoints to a checkpoint group without regard to the program structure of the computer program, the assignment of each checkpoint to a checkpoint group being specified in the statement defining the respective checkpoint (see for example page 3, [0030], "...collectively set...", Fig. 4, steps 112-124, and related text).

**Claim 14:**

Arnold further discloses the apparatus of claim 13, wherein: the checkpoints comprise assertions (see for example FIG. 4, step 108, and related text) and breakpoints (see for example FIG. 4, step 108, and related text).

**Claim 15:**

Arnold further discloses the apparatus of claim 13, further comprising: means for associating an activation variant with a checkpoint group see for example (multiple creators", page 3, [0031]).

**Claim 16:**

Arnold further discloses the apparatus of claim 13, further comprising:

means for associating an activation variant with a compilation unit (see for example page 3, [0034]).

**Claim 17:**

Arnold discloses a method, comprising:

receiving a computer program having checkpoints each identified by a group identifier (see for example page 3, [0030], "...collectively set..."), each group identifier identifying checkpoints without limitation as to the location of the checkpoints in the computer program (see for example page 3, [0030], "...collectively set..."), each checkpoint being an assertion or a breakpoint see for example ("creation breakpoints" in page 2, [0029]); and receiving user input to invoke checkpoints as a group according to their group identifiers (see for example FIG. 4, step 110, and related text).

**Claim 18:**

Arnold further discloses the method of claim 17, further comprising:

receiving a user input specifying a mode of invocation of checkpoints (see for example page 4, [0045]); and invoking checkpoints according to the specified mode (see for example page 4, [0045]).

**Claim 19:**

Arnold further discloses the method of claim 17, further comprising:

receiving a further user input specifying a scope of invocation of checkpoints, the scope specifying that checkpoints are to be invoked only for a particular user of multiple users using the computer program (see for example page 4, [0050], "...specific creators..."); and



Art Unit: 2192

invoking checkpoints according to the specified scope (see for example page 4, [0050], "...specific creators...").

**Claim 20:**

Arnold further discloses the method of claim 17, further comprising:

receiving a further user input specifying a scope of invocation of checkpoints, the scope specifying that checkpoints are to be invoked only for a particular server of multiple servers using the computer program (see for example page 4, [0050], "...specific creators..."); and

invoking checkpoints according to the specified scope (see for example page 4, [0050], "...specific creators...").

**Claim 21:**

(Cancelled)

**Claim 22:**

(Cancelled)

**Claim 23:**

(Cancelled)

**Claim 24:**

Arnold further discloses the method of claim 17. wherein the computer program has checkpoints including both assertion statements (see for example FIG. 4, step 108, and related text) and breakpoint statements (see for example page 1, [0006]).

Art Unit: 2192

**Claim 25:**

Arnold discloses a method for adding checkpoints to a computer program having source code, the method comprising:

adding to the computer program a plurality of checkpoints each assigned to a checkpoint group by a respective group name for the checkpoint (see for example page 5, [0054]), each checkpoint in the plurality of checkpoints being defined by a respective statement in source code of the computer program (see for example page 4, [0047, Fig. 4 steps 106, 110, and related text]), the assignment of each checkpoint to a checkpoint group being specified in the statement defining the respective checkpoint (see for example page 4, [0047], Fig. 4 steps 112-124, and related text).

**Claim 26:**

Arnold further discloses the method of claim 25, further comprising:

adding the plurality of checkpoints to the source code of the computer program (see for example FIG. 4, step 106, "Add creation breakpoint", and related text), the respective group name for each checkpoint being included in the source code for the checkpoint (see for example FIG. 4, step 114, "Identify creator(s) for selected class", and related text); and transporting the checkpoint groups as development objects with the computer program from a development environment to a production environment, the development objects being objects created and managed by the development environment (see for example FIG. 4, step 124, and related text).

**Claim 27:**

Arnold further discloses the product of claim 10, wherein

the argument to activate logging indicates that a log entry is made for each distinct value of a named field (see for example page 4, [0045]).

### **Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y. Chou whose telephone number is (571) 272-6829. The examiner can normally be reached on Monday-Friday, 8:00 am - 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached on (571) 272-3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Art Unit: 2192

**/Andrew Chou/**

**Examiner, Art Unit 2192**

/Tuan Q. Dam/

Supervisory Patent Examiner, Art Unit 2192